

Lake Bradford Lake

Vegetation Index Results

(8-26-2014)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction

of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake Bradford was 68, placing the lake's vegetative community in the healthy category.

Twenty four plant species were found during the survey. The native species, pond cypress (*Taxodium ascendens*), was the most dominant plant followed by, red maple (*Acer rubrum*), needleleaf Ludwigia (*Ludwigia arcuata*) and maidencane (*Panicum hemitomon*). Other native shoreline vegetation included; lesser creeping rush (*Juncus repens*), buttonbush (*Cephalanthus occidentalis*) and dotted smartweed (*Polygonum punctatum*).

Unfortunately, torpedo grass (*Panicum repens*), water spangles (*Salvinia minima*) and Chinese tallow (*Sapium sebiferum*), all listed as Category I Invasive Exotics by the Florida Exotic Pest Plant Council, are invasive exotics that are a concern in Lake Bradford. Alligator weed (*Alternanthera philoxeroides*) was the only Category II Invasive Exotic found in the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Bradford LVI survey (8-26-14). Names in bold are plants nonnative to Florida.

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Campsis radicans</i>	trumpet vine
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cyperus odoratus</i>	fragrant flatsedge
<i>Cyrilla racemiflora</i>	swamp titi
<i>Eleocharis baldwinii</i>	road-grass
<i>Eriocaulon</i> sp.	pipewort
<i>Hydrocotyle</i> sp.	water pennywort
<i>Hydrolea quadrivalvis</i>	waterpod
<i>Juncus repens</i>	lesser creeping rush
<i>Leucothoe racemosa</i>	sweetbells
<i>Liquidambar styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf Ludwigia
<i>Ludwigia</i> sp.	primrose willow
<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Nymphaea odorata</i>	fragrant waterlily
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Panicum hemitomon</i>	maidencane
<i>Panicum repens(I)</i>	torpedo grass
<i>Polygonum punctatum</i>	dotted smartweed
<i>Salvinia minima(I)</i>	water spangles
<i>Sapium sebiferum(I)</i>	Chinese tallow tree
<i>Smilax</i> sp.	greenbrier
<i>Taxodium ascendens</i>	pond cypress

I - Category I Invasive Exotics

II - Category II Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.